AGE-BASED LIFECYCLE PORTFOLIOS
November 30, 2004

The asset allocation strategy used by age-based lifecycle portfolios is based upon an investment time horizon where everyone with similar retirement time horizons is assumed to have the same appropriate risk profile and that as every person approaches their retirement time horizon, their risk profile should become generally more conservative. The primary advantage of this strategy is that an investor can buy a lifecycle fund that most closely matches their specific time horizon one time and then does not need to review or revise their investment allocation strategy unless their retirement date changes.

Virtually every large mutual fund family offers a lifecycle or lifestyle series. Morningstar currently lists 240 fund families offering lifecycle and lifestyle series. Each fund family offering has an average of 4 or 5 funds in their series. About half are lifecycle and half are lifestyle. Mutual fund lifecycle series currently offered may focus on different end-point dates (2020, 2025, 2030, etc). Asset allocations vary, with some series tending to be more conservative while others are more aggressive. Most are funds comprised of underlying funds offered within the mutual fund provider's family of funds.

<u>The Wisconsin Asset Allocation Program</u>

The five risk-based asset allocation models used in the current WDC Asset Allocation Program, which is communicated in print form, on the Web, and in person by field staff was developed from Ibbotson's risk-based asset allocation theories. Ibbotson Associates is a leading organization known for their consulting and research in asset allocation theories.

The WDC Asset Allocation Program is intended to make investment decisions easier for participants. The five asset allocation model portfolios were developed in order to assist participants in identifying their individual risk tolerance level and investment time horizon, and then suggesting a corresponding portfolio that will seek to maximize potential total return based on a specific level of risk.

When a participant enrolls in the WDC or wishes to reallocate their existing assets and future deferrals, they can simplify their decision making process by utilizing the Asset Allocation tools provided as follows:

1. Complete the Risk Tolerance Questionnaire. This allows participants to determine which of the five model portfolios is appropriate for their specific investment goals.

2. Or, the participant can then choose to build a custom portfolio, selecting the funds of their choice from the entire list of available investment options (if available) to complete the asset class categories listed in their corresponding suggested model portfolio. Either passively managed index funds or actively managed funds could be selected depending on whether these options are available to plan participants.

3. The asset allocation profiles are established by each participant who participates in the program on the record keeping system and are rebalanced quarterly to the established model.

Potential Time Horizon Strategy Mutual Funds

After reviewing the mutual fund lifecycle products available, those that utilize a target date based on age, the following candidates should be considered:

American Century My Retirement Portfolios (5 funds)
Barclays Global Investments LifePath Portfolios (5 funds)
Fidelity Freedom Funds (10 funds)
T. Rowe Price Retirement Funds, Inc. (9 funds)
Vanguard Target Retirement Funds (6 funds)

While other choices are available, all of these funds offer a high quality approach to age-based, lifecycle investing. They provide a good management and value, as well as name brand familiarity, which can be beneficial in attracting potential investors. Each of these lifecycle fund series uses a few unique strategies that should be considered when evaluating them. A prospectus for each is also included in your materials. All of these companies are currently part of the WDC Spectrum of Investment Options, except for American Century. The attached spreadsheets and Morningstar reports provide more details on each of these lifestyle fund families.

The *American Century My Retirement Portfolios* are a fund of funds where allocations are made to underlying American Century funds. The inception date for the series is August 2004, however, all of the underlying funds have long performance histories. One unique feature of this series is the inclusion of several specialized asset classes such as real estate, TIPS, international bonds, and emerging market equities. Assets in the My Retirement Portfolios were approximately $13 million as of September 30, 2004. However, American Century manages about $5 billion in all of their asset allocation/lifecycle strategies and has nearly $500 billion in total fund assets.

The expense ratios of these funds are the weighted averages of the underlying American Century Institutional Class funds, ranging from 0.55% to 0.77%. American Century believes that a static allocation of 35% equities during the retirement period is preferable to sustain consistent distribution rates assuming 4% distributions to provide account preservation. Assets are rebalanced or adjusted annually.

The *Barclays Global LifePath Portfolios*, started in February 1994, offer investors a set of comprehensive investment strategies managed by the professionals at BGI to the time when investors expect to begin withdrawing assets. Each portfolio utilizes exchange-traded funds (ETFs) and invests in a combination of stocks, bonds, and money market instruments in proportions suggested by its own comprehensive asset allocation strategy. Approximately 60% of the portfolio is actively managed and 40% is indexed.

Each fund gradually becomes more conservative as the year in the fund's name approaches, except for the LifePath Income Portfolio that is already in its most conservative phase. Unlike most risk tolerance-based funds, BGI's investment model does not limit analysis to long-term expectations. The funds also take into account short-term market conditions. If conditions in a market have increased risk levels of an investment class or index to a point that its risk levels do not justify expected returns, the portfolios will not allocate as much of their assets to it as they otherwise might. The State of Ohio section 457 plan offers BGI LifePath to its participants.

Additionally, the portfolios may reduce their allocation to an investment class or index even when risks have not increased because its expected return has fallen. Expenses are in the 0.85% range. Assets are in excess of $1.5 billion.

Fidelity began its lifecycle funds offerings in October 1996. The ten *Fidelity Freedom Funds* invest in a diversified portfolio of up to 19 well-established actively managed Fidelity funds in proportions that may be appropriate to the designated retirement date (fund of funds). The series includes funds that mature every five years, however, most plans only use the funds maturing every ten years. Expenses range from 0.63% to 0.87%, which includes the asset-weighted expenses of the underlying funds, plus 0.08% for managing each of the Freedom portfolios. Assets in the total strategy are in excess of $26 billion. A few large state Section 457 plans have added the Fidelity Freedom Funds, including New York and Kentucky.

The nine *T. Rowe Price Retirement Funds* are a fund of fund series of up to 12 actively managed and passively managed T. Rowe Price funds. The series has an inception date of 9/30/02, so assets are relatively small in the Retirement Funds – approximately $2 billion. However, the underlying funds all have long-term performance history and sizeable assets. The series has funds that mature every five years, of which some or all could be adopted by the plan. Fees range from 0.60% to 0.84%.

T. Rowe Price has the most aggressive equity allocations of any of the fund series. They have done extensive research in retirement income distribution preservation using Monte Carlo simulations to determine probabilities of success. Their studies have led them to the decisions of implementing a higher allocation to equities. The T. Rowe Price series is also unique in that where most of the competition actually merges the funds into the Income Fund upon reaching the target date; T. Rowe Price actually continues to actively manage the existing portfolio past the retirement date. Instead of implementing a static "cliff" allocation for the retirement/distribution period, they stair-step the allocations gradually to hold fewer equities, allowing a longer period of higher equity allocation to enable higher performance. The City of Kansas City recently selected the T. Rowe Price Retirement Fund Series.

The *Vanguard Target Retirement Funds* are a fund of funds investing in some actively managed portfolios, but primarily in index funds. Vanguard started offering these funds in February 2004. Low costs are an advantage of the series with costs ranging from a low 0.21% to 0.23%. Five of the funds gradually and automatically shift their underlying fund mix to a more conservative asset allocation as the retirement date approaches. The sixth fund is designed for investors already in retirement.

The allocation of the Vanguard Target Retirement Funds' assets among the underlying Vanguard funds is based on methodology developed by Vanguard Investment Counseling and Research that takes advantage of Vanguard's experience in providing investment advice to clients. Equity allocations range from a low of 20% in the Income Fund to 90% in the 2045 Fund.

<u>Disussion</u>

Criteria used by the Investment Committee to evaluate aged-based lifecycle series should include the following:

- Asset allocation strategy during accumulation (static or tactical strategy)
- Asset allocation strategy during distribution (cliff or stair step allocation changes)
- Desire for active or passive investment strategy, or a mixture of both
- Expenses
- Performance relative to appropriate custom benchmarks that match each fund's investment allocation strategy
- Name recognition and the quality of the underlying investment funds used in the portfolios
- Level of risk or aggressiveness desired for an age-targeted mutual fund series. Consideration should be given to the contribution that the WRS will provide to a participant's overall retirement income. The International Foundation for Retirement Education (InFRE) presented a class at the recent National Association of Government Defined Contribution Administrators, Inc. (NAGDCA) Conference titled "Strategies for Managing Retirement Income." They presented the idea that many experts believe that an individual's pension and social security benefits should be considered as part of the aggregated cash allocation in relationship to their total financial plan. Given the 45% to 65% estimate of a Wisconsin participant's final salary (with full benefits) that can be expected from their defined benefit plan, a strategy with higher equity allocations seems reasonable for the deferred compensation plan.

<u>Benchmarking</u>

A direct comparison of performance for any of the funds within the age-based series universe is difficult because each fund series is set up in a unique manner and investment strategies may not be similar. The most effective way to benchmark these funds is to use a customized benchmark that matches the specific strategy that each fund uses for the periods reviewed. Even this approach can be difficult because by design the allocations will change periodically. An effective approach is to select the investment approach or asset allocation strategy that makes the most sense for the WDC and then design custom benchmarks that measure the fund manager's success in achieving those objectives, and not to other funds.